

Table 21 Grip strength of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene		
mg/kg	0	45	180	720
Number of males	6	6	6	6
Forelimb				
Hindlimb	1052 ± 276	975 ± 328	1115 ± 242	1098 ± 208
	162 ± 59	103 ± 46	118 ± 31	124 ± 27

Each value shows mean (g) ± S.D.

Table 22 Grip strength of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
mg/kg	0	45	180
Number of females	6	6	6
Forelimb	939 ± 234	827 ± 225	904 ± 208
Hindlimb	113 ± 29	81 ± 25	76 ± 17
			937 ± 88
			125 ± 59

Each value shows mean (g) ± S.D.

Table 23 Spontaneous motor activity of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
mg/kg	0	45	180	720
Number of males	6	6	6	6
Ambulatory counts				
Minutes after administration				
10	573 ± 493	645 ± 517	1048 ± 535	1007 ± 568
20	242 ± 278	317 ± 322	240 ± 232	249 ± 285
30	110 ± 142	174 ± 220	115 ± 145	292 ± 276
40	64 ± 65	57 ± 61	81 ± 95	167 ± 174
50	167 ± 313	94 ± 87	87 ± 101	100 ± 173
60	93 ± 136	59 ± 76	112 ± 144	106 ± 110
Total	1249 ± 1221	1346 ± 1003	1682 ± 874	1921 ± 1354
Vertical counts				
Minutes after administration				
10	28 ± 14	37 ± 28	42 ± 21	61 ± 34
20	14 ± 12	19 ± 16	13 ± 11	23 ± 27
30	7 ± 11	14 ± 17	12 ± 21	25 ± 20
40	2 ± 3	9 ± 19	4 ± 6	14 ± 15
50	2 ± 4	11 ± 21	6 ± 9	16 ± 24
60	4 ± 6	11 ± 19	5 ± 8	15 ± 19
Total	57 ± 30	101 ± 111	82 ± 43	154 ± 129

Each value shows mean ± S.D.

Table 24 Spontaneous motor activity of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-propanediyl)biphenylene-1,3-propanediylbiphenylene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-propanediyl)biphenylene		
mg/kg	0	45	180	720
Number of females	6	6	6	6
Ambulatory counts				
Minutes after administration				
10	1837 ± 925	1576 ± 767	1338 ± 649	1516 ± 1161
20	672 ± 553	277 ± 212	225 ± 388	659 ± 574
30	172 ± 189	92 ± 123	132 ± 249	395 ± 481
40	335 ± 451	26 ± 57	108 ± 173	233 ± 336
50	320 ± 520	154 ± 274	75 ± 130	585 ± 1192
60	217 ± 177	174 ± 192	100 ± 203	215 ± 325
Total	3572 ± 1905	2298 ± 1139	1978 ± 1005	3601 ± 3674
Vertical counts				
Minutes after administration				
10	33 ± 12	36 ± 16	31 ± 19	34 ± 14
20	13 ± 9	9 ± 8	4 ± 8	13 ± 8
30	2 ± 3	3 ± 3	4 ± 7	7 ± 6
40	6 ± 6	1 ± 3	3 ± 4	4 ± 8
50	6 ± 7	4 ± 7	1 ± 2	7 ± 12
60	8 ± 12	3 ± 3	3 ± 7	4 ± 9
Total	67 ± 29	56 ± 25	46 ± 27	70 ± 44

Each value shows mean ± S.D.

Table 25-1 Urinary examination of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	1,1-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene		
	Control	45	180
mg/kg	0	45	720
Number of males	6	6	6
Volume (mL): Mean ± S.D.	9.2 ± 1.7	10.9 ± 3.2	10.1 ± 1.8
Specific gravity: Mean ± S.D.	1.059 ± 0.012	1.053 ± 0.010	1.052 ± 0.008
Color			
Light yellow	6	6	6
pH			
8.0	0	0	0
8.5	1	3	2
9.0	5	3	3
Protein			
10~20 mg/dL	0	3	1
30 mg/dL	3	0	2
100 mg/dL	3	3	3
Glucose			
Negative	6	6	6
Ketone body			
Negative	4	6	3
Slight	2	0	3
Bilirubin			
Negative	6	6	6
Occult blood			
Negative	5	4	4
Trace	1	2	1
Moderate	0	0	1
Urobilinogen			
Normal	5	6	6
1 mg/dL	1	0	0

Significantly different from control group (**: P<0.01).

Table 25-2 Urinary examination of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	45	180	720
mg/kg				
Number of males	6	6	6	6
Urinary sediments				
Epithelial cells				
0~20 cells/100 fields	6	6	6	5
101~200 cells/100 fields	0	0	0	1
Erythrocytes				
0~20 cells/100 fields	6	6	5	6
21~100 cells/100 fields	0	0	1	0
Leukocytes				
0~20 cells/100 fields	6	6	6	6
Casts				
Not observed	6	6	6	6
Crystals				
Not observed	3	4	1	1
Observed	3	2	5	5

Table 26-1 Urinary examination of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	180	720
mg/kg	0	45	180	720
Number of females	6	6	6	6
Volume (ml): Mean ± S.D.	30.1 ± 5.9	26.6 ± 8.6	37.5 ± 4.8	41.6 ± 17.3
Specific gravity: Mean ± S.D.	1.024 ± 0.003	1.028 ± 0.007	1.023 ± 0.003	1.022 ± 0.007
Color				
Light yellow	6	6	6	6
pH				
5.5	0	0	1	0
6.0	0	0	1	1
6.5	1	2	1	0
7.0	1	2	1	1
7.5	2	0	2	0
8.0	1	0	0	1
8.5	0	2	0	3
9.0	1	0	0	0
Protein				
Negative	5	3	4	2
10~20 mg/dL	1	2	2	3
30 mg/dL	0	1	0	1
Glucose				
Negative	6	6	6	6
Ketone body				
Negative	6	6	6	6
Bilirubin				
Negative	6	6	6	6
Occult blood				
Negative	6	5	6	6
Slight	0	1	0	0
Urobilinogen				
Normal	6	6	6	6

Table 26-2 Urinary examination of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	180	720
mg/kg	0	45	180	720
Number of females	6	6	6	6
Urinary sediments				
Epithelial cells				
0~20 cells/100 fields	6	6	6	6
Erythrocytes				
0~20 cells/100 fields	6	6	6	6
Leukocytes				
0~20 cells/100 fields	6	6	6	6
Casts				
Not observed	6	6	6	6
Crystals				
Not observed	1	3	5	4
Observed	5	3	1	2

Table 27-1 Urinary examination of male rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	45	180	720
mg/kg				
Number of males	6	6	6	6
Volume (mL); Mean ± S.D.	12.1 ± 5.9	14.0 ± 4.7	17.1 ± 4.8	17.8 ± 3.5
Specific gravity; Mean ± S.D.	1.053 ± 0.014	1.052 ± 0.013	1.047 ± 0.010	1.049 ± 0.010
Color				
Light yellow	6	6	6	6
pH				
8.5	1	4	4	5
9.0	5	2	2	1
Protein				
10~20 mg/dL	1	1	0	0
30 mg/dL	2	3	3	2
100 mg/dL	2	2	2	4
300 mg/dL	1	0	0	0
1000 mg/dL	0	0	1	0
Glucose				
Negative	6	6	6	6
Ketone body				
Negative	3	5	4	5
Slight	3	1	2	1
Bilirubin				
Negative	6	6	6	6
Occult blood				
Negative	6	6	6	6
Urobilinogen				
Normal	5	6	6	6
1 mg/dL	1	0	0	0

Table 27-2 Urinary examination of male rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	180	720
mg/kg	0	45	180	720
Number of males	6	6	6	6
Urinary sediments				
Epithelial cells				
0~20 cells/100 fields	6	6	6	6
Erythrocytes				
0~20 cells/100 fields	6	6	6	6
Leukocytes				
0~20 cells/100 fields	6	6	6	6
Casts				
Not observed	6	6	6	6
Crystals				
Not observed	4	4	3	0
Observed	2	2	3	6

Table 28-1 Urinary examination of female rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	720
mg/kg	0	180	5
Number of females	6	6	5
Volume (ml): Mean \pm S.D.	14.2 \pm 4.7	12.8 \pm 6.2	12.7 \pm 4.9
Specific gravity: Mean \pm S.D.	1.045 \pm 0.014	1.047 \pm 0.015	1.041 \pm 0.009
Color			
Light yellow	6	6	5
pH			
7.5	0	0	1
8.0	0	1	1
8.5	4	3	2
9.0	2	2	1
Protein			
Negative	2	2	0
10~20 mg/dL	2	2	2
30 mg/dL	2	2	0
100 mg/dL	0	0	3
Glucose			
Negative	6	6	5
Ketone body			
Negative	6	5	5
Slight	0	1	0
Bilirubin			
Negative	6	6	5
Occult blood			
Negative	6	5	4
Trace	0	1	1
Urobilinogen			
Normal	6	5	5
1 mg/dL	0	1	0

Table 28-2 Urinary examination of female rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	720
mg/kg	0	180	720
Number of females	6	6	4
Urinary sediments			
Epithelial cells			
0~20 cells/100 fields	6	6	5
Erythrocytes			
0~20 cells/100 fields	6	6	5
Leukocytes			
0~20 cells/100 fields	6	6	5
Casts			
Not observed	6	6	5
Crystals			
Not observed	2	3	1
Observed	4	3	4

Table 29 Hematological examination of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene	
	0	6	45	180
mg/kg				720
Number of males		6	6	6
RBC	830 ± 25	836 ± 21	820 ± 21	802 ± 26
HGB	15.5 ± 0.5	15.5 ± 0.3	15.3 ± 0.5	15.0 ± 0.6
HCT	46.1 ± 1.5	45.8 ± 0.9	45.6 ± 2.1	44.5 ± 1.6
MCV	55.6 ± 0.7	54.8 ± 2.3	55.5 ± 2.0	55.5 ± 0.8
MCH	18.7 ± 0.4	18.5 ± 0.7	18.7 ± 0.5	18.7 ± 0.3
MCHC	33.6 ± 0.5	33.8 ± 0.4	33.7 ± 0.5	33.6 ± 0.6
PLT	96.9 ± 8.5	96.9 ± 8.2	101.9 ± 8.0	105.3 ± 8.0
RET	24 ± 9	25 ± 2	23 ± 4	23 ± 7
PT	18.7 ± 2.5	22.6 ± 3.2	30.3 ± 4.5**	28.3 ± 6.6**
APTT	23.4 ± 2.5	26.9 ± 2.3	34.7 ± 4.5**	38.7 ± 4.8**
Fbg	219.4 ± 14.1	217.9 ± 10.9	233.1 ± 18.9	252.4 ± 16.9**
WBC	74 ± 17	62 ± 17	73 ± 20	64 ± 20
Differential leukocyte (%)				
Lymphocyte	84.8 ± 6.3	85.3 ± 5.7	85.8 ± 5.1	84.8 ± 4.1
Neutrophil	13.8 ± 5.8	13.7 ± 5.5	13.0 ± 4.9	14.5 ± 4.1
Eosinophil	0.7 ± 0.8	0.3 ± 0.8	0.3 ± 0.5	0.5 ± 0.5
Basophil	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
Monocyte	0.7 ± 0.8	0.7 ± 0.5	0.8 ± 0.4	0.2 ± 0.4

Each value shows mean ± S.D.

Significantly different from control group (**. P<0.01).

Table 30 Hematological examination of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	45	180	720
mg/kg				
Number of females	6	6	6	6
RBC (10 ⁹ /μL)	749 ± 21	752 ± 52	702 ± 28	679 ± 66 *
HGB (g/dL)	14.7 ± 0.4	14.7 ± 0.8	14.0 ± 0.3	13.6 ± 1.0
HCT (%)	43.4 ± 1.4	43.2 ± 2.4	40.7 ± 1.1	40.1 ± 3.1 *
MCV (fL)	57.9 ± 1.4	57.5 ± 1.5	58.1 ± 1.6	59.2 ± 2.1
MCH (pg)	19.7 ± 0.6	19.6 ± 0.7	19.9 ± 0.8	20.1 ± 0.8
MCHC (g/dL)	34.0 ± 0.5	34.1 ± 0.3	34.3 ± 0.7	34.0 ± 0.4
PLT (10 ⁹ /μL)	109.7 ± 10.9	92.8 ± 26.5	105.6 ± 6.2	130.4 ± 15.1
RET (%)	55 ± 9	51 ± 8	58 ± 12	64 ± 11
PT (sec.)	16.2 ± 0.6	15.4 ± 0.2 *	15.0 ± 0.5 **	14.7 ± 0.6 **
APTT (sec.)	16.9 ± 1.9	18.4 ± 0.5	18.1 ± 1.2	21.5 ± 1.8 **
Fbg (mg/dL)	231.2 ± 12.5	237.5 ± 61.8	285.6 ± 82.6	210.4 ± 23.5
WBC (10 ⁷ /μL)	39 ± 8	49 ± 8	61 ± 19 *	56 ± 18
Differential leukocyte (%)				
Lymphocyte	85.2 ± 7.2	84.0 ± 7.1	81.3 ± 9.1	87.2 ± 1.7
Neutrophil	13.8 ± 6.4	14.7 ± 6.7	17.7 ± 9.2	12.2 ± 1.7
Eosinophil	0.5 ± 0.8	0.3 ± 0.5	0.3 ± 0.5	0.2 ± 0.4
Basophil	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
Monocyte	0.5 ± 0.5	1.0 ± 0.6	0.7 ± 0.8	0.5 ± 0.5

Each value shows mean ± S.D.

Significantly different from control group (*: P<0.05, **: P<0.01).

Table 31 Hematological examination of male rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration.

Group	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	45	180	720
Number of males	6	6	6	6
RBC (10 ⁴ /μL)	861 ± 21	854 ± 11	851 ± 39	846 ± 53
HGB (g/dL)	15.7 ± 0.5	15.5 ± 0.6	15.6 ± 0.6	15.1 ± 0.7
HCT (%)	46.4 ± 1.8	45.7 ± 1.3	46.0 ± 2.1	44.9 ± 2.5
MCV (fL)	53.9 ± 1.7	53.6 ± 1.3	54.1 ± 1.1	53.1 ± 0.7
MCH (pg)	18.2 ± 0.5	18.1 ± 0.6	18.3 ± 0.3	17.9 ± 0.3
MCHC (g/dL)	33.8 ± 0.2	33.8 ± 0.5	33.9 ± 0.4	33.6 ± 0.4
PLT (10 ⁴ /μL)	100.7 ± 13.6	95.1 ± 16.9	97.1 ± 6.7	106.8 ± 10.0
RET (%)	26 ± 5	26 ± 5	25 ± 5	34 ± 9
PT (sec.)	19.3 ± 3.2	17.5 ± 1.6	17.6 ± 1.9	22.2 ± 3.5
APTT (sec.)	23.5 ± 1.6	22.2 ± 1.6	22.3 ± 1.4	24.4 ± 1.8
Fbg (mg/dL)	196.6 ± 7.9	205.4 ± 17.4	212.9 ± 10.6	199.8 ± 10.0
WBC (10 ² /μL)	57 ± 19	59 ± 19	61 ± 11	44 ± 7
Differential leukocyte (%)				
Lymphocyte	87.5 ± 4.1	87.5 ± 5.0	87.3 ± 5.5	84.2 ± 6.8
Neutrophil	12.0 ± 4.1	11.2 ± 4.4	11.8 ± 5.2	15.2 ± 6.2
Eosinophil	0.2 ± 0.4	0.7 ± 0.8	0.3 ± 0.5	0.3 ± 0.5
Basophil	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
Monocyte	0.3 ± 0.5	0.7 ± 0.5	0.5 ± 0.5	0.3 ± 0.5

Each value shows mean ± S.D.

Table 32 Hematological examination of female rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene	
	0	180	720	720
mg/kg				
Number of females	6	6	5	5
RBC (10 ⁶ /µL)	785 ± 20	800 ± 31	796 ± 26	796 ± 26
HGB (g/dL)	15.2 ± 0.6	15.2 ± 0.3	14.9 ± 0.5	14.9 ± 0.5
HCT (%)	43.7 ± 1.2	44.1 ± 1.2	43.4 ± 1.1	43.4 ± 1.1
MCV (fL)	55.7 ± 0.9	55.2 ± 1.2	54.6 ± 1.8	54.6 ± 1.8
MCH (pg)	19.4 ± 0.4	19.0 ± 0.6	18.8 ± 0.9	18.8 ± 0.9
MCHC (g/dL)	34.9 ± 0.4	34.5 ± 0.5	34.4 ± 0.6	34.4 ± 0.6
PLT (10 ⁴ /µL)	103.0 ± 12.2	106.8 ± 12.6	105.4 ± 11.0	105.4 ± 11.0
RET (%)	21 ± 2	24 ± 6	23 ± 5	23 ± 5
PT (sec.)	15.7 ± 0.5	15.1 ± 0.9	15.4 ± 0.1	15.4 ± 0.1
APTT (sec.)	18.3 ± 1.4	17.6 ± 0.9	18.4 ± 0.7	18.4 ± 0.7
Fbg (mg/dL)	169.0 ± 11.6	162.9 ± 15.5	175.8 ± 14.4	175.8 ± 14.4
WBC (10 ³ /µL)	34 ± 9	31 ± 6	34 ± 12	34 ± 12
Differential leukocyte (%)				
Lymphocyte	83.3 ± 7.1	84.8 ± 8.0	83.2 ± 4.6	83.2 ± 4.6
Neutrophil	15.7 ± 6.8	13.3 ± 7.8	15.6 ± 4.9	15.6 ± 4.9
Eosinophil	0.7 ± 0.5	1.2 ± 1.2	0.6 ± 0.9	0.6 ± 0.9
Basophil	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0
Monocyte	0.3 ± 0.8	0.7 ± 0.8	0.6 ± 0.5	0.6 ± 0.5

Each value shows mean ± S.D.

Table 33 Blood chemical examination of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	45	180	720
mg/kg				
Number of males	6	6	6	6
AST (IU/L)	114.8 ± 89.5	72.7 ± 11.7	65.1 ± 9.5	61.5 ± 8.3 **
ALT (IU/L)	49.2 ± 47.5	33.2 ± 9.2	37.4 ± 14.7	38.9 ± 10.9
ALP (IU/L)	365.8 ± 52.5	368.7 ± 78.6	357.8 ± 36.7	389.0 ± 131.6
γ-GTP (IU/L)	0.53 ± 0.17	0.33 ± 0.18	1.39 ± 0.71	2.62 ± 0.87 **
TP (g/dL)	5.59 ± 0.17	5.62 ± 0.23	5.86 ± 0.18	6.40 ± 0.40 **
Alb (g/dL)	2.76 ± 0.12	2.80 ± 0.15	2.92 ± 0.13	3.29 ± 0.20 **
A/G	0.98 ± 0.04	0.99 ± 0.05	1.00 ± 0.06	1.06 ± 0.04 *
T-Bil (mg/dL)	0.13 ± 0.05	0.09 ± 0.04	0.15 ± 0.01	0.27 ± 0.05 *
UN (mg/dL)	14.8 ± 2.4	13.2 ± 1.4	14.6 ± 2.0	14.3 ± 2.2
CRE (mg/dL)	0.30 ± 0.05	0.28 ± 0.03	0.27 ± 0.03	0.26 ± 0.01
Glu (mg/dL)	127.3 ± 9.4	118.7 ± 13.0	121.8 ± 5.5	114.8 ± 12.5
T-Chol (mg/dL)	55.2 ± 12.4	55.5 ± 11.6	65.3 ± 9.9	125.9 ± 34.2 **
TG (mg/dL)	21.0 ± 5.2	35.8 ± 16.7	15.1 ± 6.2	13.2 ± 6.1
Na (mEq/L)	144.5 ± 1.3	144.9 ± 1.0	144.6 ± 1.6	144.4 ± 1.2
K (mEq/L)	4.37 ± 0.20	4.39 ± 0.20	4.03 ± 0.16 *	4.29 ± 0.24
Cl (mEq/L)	106.2 ± 1.2	105.8 ± 1.0	105.2 ± 1.8	104.0 ± 1.1 *
Ca (mg/dL)	9.5 ± 0.3	9.6 ± 0.4	10.0 ± 0.2 *	10.3 ± 0.4 **
IP (mg/dL)	6.6 ± 0.6	6.6 ± 0.8	6.3 ± 0.5	6.2 ± 0.4

Each value shows mean ± S.D.

Significantly different from control group (*: P<0.05, **: P<0.01).

Table 34 Blood chemical examination of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	Control			1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene		
	0	45	180	720	180	720
Number of females	6	6	6	6	6	6
AST (IU/L)	82.0 ± 18.1	91.1 ± 15.5	104.3 ± 25.0	110.5 ± 54.4	104.3 ± 25.0	110.5 ± 54.4
ALT (IU/L)	23.2 ± 3.7	27.3 ± 4.6	25.2 ± 0.7	54.6 ± 63.7	25.2 ± 0.7	54.6 ± 63.7
ALP (IU/L)	238.6 ± 39.4	178.0 ± 17.9	215.9 ± 92.8	209.8 ± 67.9	215.9 ± 92.8	209.8 ± 67.9
γ-GTP (IU/L)	0.49 ± 0.04	1.29 ± 1.41	1.07 ± 0.76	3.42 ± 1.48 **	1.07 ± 0.76	3.42 ± 1.48 **
TP (g/dL)	6.09 ± 0.21	6.30 ± 0.41	6.60 ± 0.19 *	6.64 ± 0.44 *	6.60 ± 0.19 *	6.64 ± 0.44 *
Alb (g/dL)	3.14 ± 0.12	3.14 ± 0.26	3.07 ± 0.23	3.41 ± 0.24	3.07 ± 0.23	3.41 ± 0.24
A/G	1.07 ± 0.08	1.00 ± 0.08	0.88 ± 0.15 *	1.06 ± 0.07	0.88 ± 0.15 *	1.06 ± 0.07
T-Bil (mg/dL)	0.14 ± 0.02	0.14 ± 0.03	0.15 ± 0.02	0.20 ± 0.04 *	0.15 ± 0.02	0.20 ± 0.04 *
UN (mg/dL)	17.0 ± 2.4	19.3 ± 2.6	21.7 ± 7.1	16.5 ± 1.8	21.7 ± 7.1	16.5 ± 1.8
CRE (mg/dL)	0.33 ± 0.03	0.36 ± 0.05	0.36 ± 0.05	0.33 ± 0.03	0.36 ± 0.05	0.33 ± 0.03
Glu (mg/dL)	120.7 ± 10.6	112.4 ± 5.7	105.2 ± 8.0	93.2 ± 18.6 **	105.2 ± 8.0	93.2 ± 18.6 **
T-Chol (mg/dL)	74.2 ± 13.6	60.4 ± 8.4	64.0 ± 10.2	76.2 ± 21.5	64.0 ± 10.2	76.2 ± 21.5
TG (mg/dL)	21.1 ± 7.0	27.5 ± 9.8	31.3 ± 9.3	30.7 ± 10.4	31.3 ± 9.3	30.7 ± 10.4
Na (mEq/L)	142.2 ± 0.4	141.1 ± 1.1	138.2 ± 4.6	141.8 ± 1.5	138.2 ± 4.6	141.8 ± 1.5
K (mEq/L)	4.07 ± 0.38	4.10 ± 0.24	4.32 ± 0.28	4.32 ± 0.29	4.32 ± 0.28	4.32 ± 0.29
Cl (mEq/L)	105.4 ± 0.7	105.0 ± 1.4	101.2 ± 3.7 *	103.8 ± 1.4	101.2 ± 3.7 *	103.8 ± 1.4
Ca (mg/dL)	10.6 ± 0.3	10.9 ± 0.3	11.0 ± 0.5	10.8 ± 0.4	11.0 ± 0.5	10.8 ± 0.4
IP (mg/dL)	6.7 ± 0.7	6.7 ± 0.6	7.0 ± 0.5	6.4 ± 0.9	7.0 ± 0.5	6.4 ± 0.9

Each value shows mean ± S.D.

Significantly different from control group (*: P<0.05, **: P<0.01).

Table 35 Blood chemical examination of male rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	45	180	720
Number of males	6	6	6	6
AST (IU/L)	89.7 ± 11.8	84.1 ± 6.1	87.9 ± 10.7	78.8 ± 5.0
ALT (IU/L)	28.1 ± 6.2	29.8 ± 6.5	31.1 ± 5.1	32.1 ± 6.3
ALP (IU/L)	277.4 ± 49.2	334.8 ± 69.2	330.1 ± 72.8	278.1 ± 72.4
γ-GTP (IU/L)	0.42 ± 0.15	0.45 ± 0.17	0.61 ± 0.21	0.81 ± 0.27 **
TP (g/dL)	5.46 ± 0.28	5.38 ± 0.22	5.69 ± 0.16	5.53 ± 0.36
Alb (g/dL)	2.75 ± 0.08	2.69 ± 0.17	2.90 ± 0.16	2.75 ± 0.15
A/G	1.02 ± 0.08	1.00 ± 0.07	1.04 ± 0.07	1.00 ± 0.10
T-Bil (mg/dL)	0.17 ± 0.03	0.15 ± 0.02	0.16 ± 0.02	0.15 ± 0.02
UN (mg/dL)	17.2 ± 2.8	17.3 ± 2.6	16.5 ± 2.6	16.7 ± 1.6
CRE (mg/dL)	0.30 ± 0.02	0.30 ± 0.04	0.28 ± 0.02	0.27 ± 0.03
Glu (mg/dL)	117.6 ± 6.3	140.4 ± 21.1	116.9 ± 6.6	115.5 ± 11.4
T-Chol (mg/dL)	56.4 ± 12.6	61.5 ± 12.2	68.1 ± 18.3	60.6 ± 16.5
TG (mg/dL)	35.5 ± 18.6	44.0 ± 38.6	36.9 ± 16.1	28.7 ± 9.4
Na (mEq/L)	138.1 ± 0.9	138.0 ± 0.9	138.2 ± 1.0	138.0 ± 0.7
K (mEq/L)	4.26 ± 0.17	4.11 ± 0.18	4.21 ± 0.10	4.30 ± 0.10
Cl (mg/dL)	100.7 ± 1.2	100.4 ± 0.2	100.6 ± 0.7	100.5 ± 0.6
Ca (mg/dL)	9.3 ± 0.3	9.3 ± 0.2	9.5 ± 0.2	9.5 ± 0.4
IP (mg/dL)	6.4 ± 0.5	6.6 ± 0.5	6.5 ± 0.4	6.9 ± 0.7

Each value shows mean ± S.D.

Significantly different from control group (**; P<0.01).

Table 36 Blood chemical examination of female rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	180	720	720
mg/kg				
Number of females	6	6	5	5
AST (IU/L)	77.7 ± 9.7	74.4 ± 26.2	70.9 ± 17.3	70.9 ± 17.3
ALT (IU/L)	25.0 ± 6.0	24.6 ± 4.6	22.3 ± 2.6	22.3 ± 2.6
ALP (IU/L)	137.1 ± 24.1	127.1 ± 23.5	113.5 ± 14.1	113.5 ± 14.1
γ-GTP (IU/L)	0.59 ± 0.45	0.59 ± 0.27	0.50 ± 0.36	0.50 ± 0.36
TP (g/dL)	6.24 ± 0.59	6.43 ± 0.33	6.77 ± 0.29	6.77 ± 0.29
Alb (g/dL)	3.48 ± 0.37	3.41 ± 0.23	3.71 ± 0.16	3.71 ± 0.16
A/G	1.26 ± 0.13	1.13 ± 0.07	1.22 ± 0.09	1.22 ± 0.09
T-Bil (mg/dL)	0.16 ± 0.04	0.15 ± 0.04	0.17 ± 0.03	0.17 ± 0.03
UN (mg/dL)	18.2 ± 1.3	17.0 ± 1.4	18.5 ± 1.3	18.5 ± 1.3
CRE (mg/dL)	0.36 ± 0.03	0.34 ± 0.03	0.32 ± 0.03	0.32 ± 0.03
Glu (mg/dL)	122.6 ± 11.5	123.2 ± 9.2	120.9 ± 13.9	120.9 ± 13.9
T-Chol (mg/dL)	69.5 ± 12.4	83.8 ± 9.7	99.2 ± 24.4 *	99.2 ± 24.4 *
TG (mg/dL)	21.8 ± 11.1	20.3 ± 2.9	25.8 ± 3.9	25.8 ± 3.9
Na (mEq/L)	133.4 ± 1.3	134.1 ± 1.1	133.4 ± 1.0	133.4 ± 1.0
K (mEq/L)	3.78 ± 0.36	3.72 ± 0.25	3.71 ± 0.12	3.71 ± 0.12
Cl (mEq/L)	100.5 ± 0.7	100.1 ± 2.3	97.8 ± 0.9 *	97.8 ± 0.9 *
Ca (mg/dL)	9.9 ± 0.6	10.0 ± 0.3	10.4 ± 0.3	10.4 ± 0.3
IP (mg/dL)	4.6 ± 0.6	5.3 ± 0.6	5.1 ± 0.5	5.1 ± 0.5

Each value shows mean ± S.D.

Significantly different from control group (*: P<0.05).

Table 37 Necropsy findings of dead female rats in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene
mg/kg	720
Number of dead females	1
Thymus	
Atrophy	1
Spleen	
Atrophy	1

Table 38 Necropsy findings of dead female rats (recovery group) in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene
mg/kg	720
Number of dead females	1
Thymus	
Atrophy	1
Adrenal	
Enlargement	1

Table 39 Necropsy findings of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene	180	720
mg/kg	0	45	180	720
Number of males	6	6	6	6
Normal	6	6	6	6

Table 40 Necropsy findings of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1,3-propanediyl)bisbenzene	1,1'-(1,1,3-propanediyl)bisbenzene	1,1'-(1,1,3-propanediyl)bisbenzene
mg/kg	0	45	180	720
Number of dams				
Normal	11	12	11	10
Number of non-pregnant females	11	12	11	10
Normal	1	0	1	1
	1	-	1	1

Table 41 Necropsy findings of male rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene	180	720
mg/kg	0	45	180	720
Number of males	6	6	6	6
Normal	6	5	6	6
Liver				
Adhesion	0	1	0	0

Table 42 Necropsy findings of female rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene
mg/kg	0	180
Number of females	6	6
Normal	6	5
		720
		5
		5

Table 43 Organ weights of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-propanediyl)bisbenzene by oral administration

Group	Control			1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene		
	0	45	180	720	720	720
mg/kg	0	45	180	720	720	720
Number of males	6	6	6	6	6	6
Body weight (g)	496 ± 34	494 ± 38	474 ± 24	446 ± 26 *		
Brain (g)	2.05 ± 0.05	2.06 ± 0.06	2.11 ± 0.09	2.05 ± 0.07		
Brain (g%)	0.41 ± 0.03	0.42 ± 0.03	0.45 ± 0.03	0.46 ± 0.03 *		
Pituitary (mg)	14.3 ± 1.3	13.5 ± 1.3	15.3 ± 1.3	14.2 ± 1.5		
Pituitary (mg%)	2.9 ± 0.2	2.8 ± 0.3	3.2 ± 0.3	3.2 ± 0.3		
Thyroids (mg)	22.5 ± 4.7	23.7 ± 4.9	24.0 ± 2.6	29.1 ± 4.0 *		
Thyroids (mg%)	4.5 ± 0.8	4.8 ± 1.1	5.1 ± 0.6	6.6 ± 1.0 **		
Thymus (mg)	278 ± 41	270 ± 28	289 ± 53	265 ± 64		
Thymus (mg%)	56 ± 7	55 ± 6	61 ± 11	59 ± 12		
Heart (g)	1.52 ± 0.13	1.54 ± 0.10	1.55 ± 0.14	1.44 ± 0.16		
Heart (g%)	0.31 ± 0.02	0.31 ± 0.02	0.33 ± 0.02	0.32 ± 0.03		
Liver (g)	13.26 ± 1.49	15.17 ± 1.37 *	17.22 ± 1.27 **	19.95 ± 0.64 **		
Liver (g%)	2.67 ± 0.17	3.07 ± 0.22 *	3.64 ± 0.17 **	4.49 ± 0.34 **		
Spleen (mg)	762 ± 129	665 ± 106	690 ± 81	735 ± 109		
Spleen (mg%)	153 ± 20	135 ± 22	146 ± 14	164 ± 20		
Kidneys (g)	2.96 ± 0.20	3.02 ± 0.31	3.49 ± 0.34 **	3.49 ± 0.21 **		
Kidneys (g%)	0.60 ± 0.03	0.61 ± 0.04	0.74 ± 0.06 **	0.78 ± 0.03 **		
Adrenals (mg)	55.8 ± 8.2	63.4 ± 9.1	62.9 ± 8.2	58.8 ± 6.2		
Adrenals (mg%)	11.3 ± 1.9	12.9 ± 1.7	13.2 ± 1.2	13.2 ± 1.4		
Testes (g)	3.29 ± 0.17	3.44 ± 0.15	3.39 ± 0.34	3.41 ± 0.31		
Testes (g%)	0.67 ± 0.05	0.70 ± 0.06	0.72 ± 0.07	0.77 ± 0.08 *		
Epididymides (g)	1.21 ± 0.06	1.21 ± 0.12	1.21 ± 0.08	1.22 ± 0.06		
Epididymides (g%)	0.25 ± 0.02	0.25 ± 0.04	0.25 ± 0.02	0.27 ± 0.02		

Each value shows mean ± S.D.

Significantly different from control group (*: P<0.05, **: P<0.01).

Table 44 Organ weights of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	45	180	720
mg/kg				
Number of females	11	12	10	9
Body weight (g)	279 ± 17	281 ± 14	273 ± 14	266 ± 13
Brain (g)	1.94 ± 0.04	1.92 ± 0.07	1.92 ± 0.06	1.87 ± 0.08
(g%)	0.70 ± 0.04	0.69 ± 0.04	0.71 ± 0.03	0.70 ± 0.04
Pituitary (mg)	15.1 ± 2.1	15.4 ± 2.0	14.3 ± 1.7	13.8 ± 2.4
(mg%)	5.4 ± 0.8	5.5 ± 0.8	5.3 ± 0.5	5.2 ± 0.7
Thyroids (mg)	15.8 ± 3.2	16.3 ± 2.3	18.4 ± 5.3	19.8 ± 3.6
(mg%)	5.7 ± 1.1	5.8 ± 1.0	6.8 ± 1.9	7.5 ± 1.6 *
Thymus (mg)	223 ± 39	243 ± 61	224 ± 46	236 ± 53
(mg%)	80 ± 15	87 ± 21	82 ± 16	89 ± 20
Heart (g)	1.00 ± 0.08	0.98 ± 0.06	0.95 ± 0.09	0.98 ± 0.07
(g%)	0.36 ± 0.02	0.35 ± 0.02	0.35 ± 0.03	0.37 ± 0.03
Liver (g)	9.13 ± 1.05	9.96 ± 0.47	11.48 ± 0.88 **	13.65 ± 1.51 **
(g%)	3.27 ± 0.26	3.55 ± 0.20	4.21 ± 0.27 **	5.14 ± 0.57 **
Spleen (mg)	626 ± 110	653 ± 132	672 ± 125	584 ± 86
(mg%)	223 ± 30	232 ± 45	246 ± 43	220 ± 31
Kidneys (g)	1.99 ± 0.28	2.00 ± 0.21	2.12 ± 0.19	2.05 ± 0.20
(g%)	0.71 ± 0.07	0.71 ± 0.07	0.78 ± 0.08	0.77 ± 0.07
Adrenals (mg)	74.4 ± 7.5	74.3 ± 6.4	71.9 ± 11.9	71.5 ± 7.8
(mg%)	26.7 ± 2.4	26.5 ± 2.7	26.4 ± 3.9	26.9 ± 2.7
Ovaries (mg)	99.7 ± 11.4	95.6 ± 6.6	95.7 ± 8.7	88.9 ± 10.3 *
(mg%)	35.8 ± 4.3	34.1 ± 2.9	35.2 ± 3.1	33.4 ± 2.7
Uterus (mg)	640 ± 139	607 ± 155	561 ± 77	518 ± 136
(mg%)	231 ± 59	218 ± 65	206 ± 31	196 ± 56

Each value shows mean ± S.D.

Significantly different from control group (*: P<0.05, **: P<0.01).

Table 45 Organ weights of male rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	6	45	180
mg/kg				
Number of males				
Body weight	512 ± 15	519 ± 29	515 ± 28	478 ± 41
Brain	2.17 ± 0.09 (g)	2.08 ± 0.06 (g)	2.15 ± 0.12 (g)	2.07 ± 0.09 (g)
Pituitary	0.42 ± 0.02 (g%)	0.40 ± 0.03 (g%)	0.42 ± 0.03 (g%)	0.43 ± 0.03 (g%)
Thyroids	14.5 ± 1.7 (mg)	14.1 ± 1.7 (mg)	13.8 ± 1.4 (mg)	14.1 ± 1.0 (mg)
Thymus	2.8 ± 0.3 (mg%)	2.7 ± 0.3 (mg%)	2.7 ± 0.1 (mg%)	2.9 ± 0.3 (mg%)
Heart	18.6 ± 3.2 (mg)	24.9 ± 4.7 *	20.0 ± 1.8 (mg)	24.5 ± 4.4 *
Liver	3.7 ± 0.6 (mg%)	4.8 ± 0.7 *	3.9 ± 0.4 (mg%)	5.2 ± 0.8 **
Spleen	309 ± 91 (mg)	266 ± 74 (mg)	255 ± 48 (mg)	287 ± 48 (mg)
Kidneys	61 ± 19 (mg%)	52 ± 16 (mg%)	49 ± 7 (mg%)	60 ± 10 (mg%)
Adrenals	1.58 ± 0.13 (g)	1.56 ± 0.11 (g)	1.63 ± 0.19 (g)	1.50 ± 0.14 (g)
Testes	0.31 ± 0.03 (g%)	0.30 ± 0.03 (g%)	0.32 ± 0.03 (g%)	0.31 ± 0.02 (g%)
Epididymides	12.23 ± 0.93 (g)	13.32 ± 1.57 (g)	13.59 ± 1.09 (g)	14.34 ± 2.39 (g)
	2.38 ± 0.12 (g%)	2.56 ± 0.17 (g%)	2.64 ± 0.11 (g%)	2.98 ± 0.29 ** (g%)
	771 ± 96 (mg)	809 ± 128 (mg)	760 ± 138 (mg)	765 ± 117 (mg)
	150 ± 19 (mg%)	156 ± 19 (mg%)	148 ± 23 (mg%)	160 ± 19 (mg%)
	3.13 ± 0.18 (g)	3.16 ± 0.25 (g)	3.36 ± 0.30 (g)	3.36 ± 0.58 (g)
	0.61 ± 0.03 (g%)	0.61 ± 0.04 (g%)	0.65 ± 0.04 (g%)	0.70 ± 0.08 * (g%)
	61.3 ± 6.2 (mg)	57.0 ± 9.9 (mg)	58.3 ± 9.4 (mg)	65.4 ± 11.2 (mg)
	12.0 ± 1.3 (mg%)	11.1 ± 2.5 (mg%)	11.4 ± 1.7 (mg%)	13.6 ± 1.5 (mg%)
	3.63 ± 0.20 (g)	3.40 ± 0.21 (g)	3.46 ± 0.27 (g)	3.44 ± 0.18 (g)
	0.71 ± 0.05 (g%)	0.66 ± 0.03 (g%)	0.68 ± 0.08 (g%)	0.72 ± 0.07 (g%)
	1.33 ± 0.15 (g)	1.36 ± 0.13 (g)	1.32 ± 0.11 (g)	1.30 ± 0.15 (g)
	0.26 ± 0.03 (g%)	0.26 ± 0.03 (g%)	0.26 ± 0.04 (g%)	0.27 ± 0.02 (g%)

Each value shows mean ± S.D.

Significantly different from control group (*: P<0.05, **: P<0.01).

Table 46 Organ weights of female rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	Control		1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
	0	180	720	720
Number of females	6	6	5	5
Body weight (g)	287 ± 15	272 ± 13	274 ± 15	274 ± 15
Brain (g)	1.95 ± 0.07	1.95 ± 0.07	1.97 ± 0.06	1.97 ± 0.06
Pituitary (g%)	0.68 ± 0.03	0.72 ± 0.05	0.72 ± 0.04	0.72 ± 0.04
Thyroids (mg)	14.9 ± 2.2	18.1 ± 2.6	15.9 ± 2.0	15.9 ± 2.0
Thymus (mg%)	5.2 ± 0.7	6.7 ± 1.2 *	5.8 ± 0.7	5.8 ± 0.7
Heart (mg)	16.5 ± 3.5	14.9 ± 2.9	19.3 ± 2.9	19.3 ± 2.9
Liver (mg%)	5.7 ± 1.2	5.5 ± 1.1	7.0 ± 0.8	7.0 ± 0.8
Spleen (mg)	256 ± 48	295 ± 55	285 ± 70	285 ± 70
Kidneys (mg%)	90 ± 20	109 ± 21	103 ± 21	103 ± 21
Adrenals (g)	0.93 ± 0.07	0.90 ± 0.08	0.94 ± 0.01	0.94 ± 0.01
Ovaries (g%)	0.32 ± 0.03	0.33 ± 0.02	0.35 ± 0.02	0.35 ± 0.02
Uterus (g)	7.39 ± 0.79	7.22 ± 0.54	8.18 ± 0.58	8.18 ± 0.58
Uterus (mg%)	2.57 ± 0.20	2.66 ± 0.09	2.98 ± 0.10 **	2.98 ± 0.10 **
Spleen (mg)	547 ± 61	511 ± 93	549 ± 89	549 ± 89
Kidneys (mg%)	191 ± 24	187 ± 29	200 ± 24	200 ± 24
Adrenals (g)	1.84 ± 0.11	1.80 ± 0.18	1.90 ± 0.06	1.90 ± 0.06
Ovaries (mg)	0.64 ± 0.03	0.66 ± 0.04	0.70 ± 0.03 *	0.70 ± 0.03 *
Ovaries (mg%)	67.1 ± 6.8	66.0 ± 8.1	68.1 ± 9.9	68.1 ± 9.9
Ovaries (mg)	23.4 ± 2.4	24.3 ± 2.7	24.8 ± 2.7	24.8 ± 2.7
Ovaries (mg%)	78.6 ± 11.7	82.3 ± 8.8	88.5 ± 9.9	88.5 ± 9.9
Ovaries (mg)	27.4 ± 4.2	30.3 ± 2.7	32.3 ± 3.1	32.3 ± 3.1
Ovaries (mg%)	637 ± 231	626 ± 200	566 ± 69	566 ± 69
Ovaries (mg%)	223 ± 87	229 ± 64	207 ± 30	207 ± 30

Each value shows mean ± S.D.

Significantly different from control group (*: P<0.05, **: P<0.01).

Table 47 Histopathological findings of dead female rats in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene				
mg/kg	720				
Grade	N ^{a)}	A ^{b)}	±	+	3+
Findings					
Whole organs and tissues					
Postmortal change		[1] ^{c)}	0	1	0
Liver		[1]			
Swelling, hepatocyte, centrilobular	0	1	0	1	0

a): No abnormality detected.

b): Abnormality detected.

c): Number in brackets is number of females examined.

Grade of histopathological findings: ±: slight, +: mild, 2+: moderate, 3+: marked.

Examined heart, lung, trachea, liver, pancreas, sublingual gland, submandibular gland, esophagus, stomach, duodenum, jejunum, ileum, cecum, colon, rectum, thymus, spleen, submandibular lymph node, mesenteric lymph node, kidney, urinary bladder, ovary, uterus, vagina, pituitary, adrenal, thyroid, parathyroid, cerebrum, cerebellum, medulla oblongata, spinal cord, sciatic nerve, eyeball, Harderian gland, bone marrow (sternum or femur), bone (sternum or femur), and mammary gland.

Table 48 Histopathological findings of dead female rats (recovery group) in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene 720				
	N ^a	A ^b	±	+	3+
Findings					
Whole organs and tissues	[1] ^c				
Postnortal change	0	1	0	1	0
Liver	[1]				
Swelling, hepatocyte, centrilobular	0	1	0	1	0

a): No abnormality detected.

b): Abnormality detected.

c): Number in brackets is number of females examined.

Grade of histopathological findings: ±: slight, +: mild, 2+: moderate, 3+: marked.

Examined heart, lung, trachea, liver, pancreas, sublingual gland, submandibular gland, esophagus, stomach, duodenum, jejunum, ileum, cecum, colon, rectum, thymus, spleen, submandibular lymph node, mesenteric lymph node, kidney, urinary bladder, ovary, uterus, vagina, pituitary, adrenal, thyroid, parathyroid, cerebrum, cerebellum, medulla oblongata, spinal cord, sciatic nerve, eyeball, Harderian gland, bone marrow (sternum or femur), bone (sternum or femur), and mammary gland.

Table 49-1 Histopathological findings of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	Control					1,1-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene									
	N ^{a)}	A ^{b)}	±	+	2+ 3+	N ^{a)}	A ^{b)}	±	+	2+ 3+	N ^{a)}	A ^{b)}	±	+	2+ 3+
Grade															
Findings															
Heart	[6] ^{p)}					[0]					[0]				
Cellular infiltration	4	2	2	0	0										
Lung	[6]					[0]					[0]				
Mineralization, vascular wall	6	0	0	0	0										
Trachea	[6]					[0]					[0]				
Liver	[6]					[6]					[6]				
Swelling, hepatocyte, centrilobular	6	0	0	0	0	5	1	1	0	0	0	6	4	2	0
Basophilic change, hepatocyte	6	0	0	0	0	5	1	1	0	0	0	6	6	0	0
Necrosis, hepatocyte, focal	5	1	1	0	0	6	0	0	0	0	6	0	0	0	0
Pancreas	[6]					[0]					[0]				
Sublingual gland	[6]					[0]					[0]				
Submandibular gland	[6]					[0]					[0]				
Esophagus	[6]					[0]					[0]				
Stomach	[6]					[0]					[0]				
Duodenum	[6]					[0]					[0]				
Jejunum	[6]					[0]					[0]				
Mineralization, Peyer's patch	5	1	1	0	0										
Ileum	[6]					[0]					[0]				
Cecum	[6]					[0]					[0]				
Colon	[6]					[0]					[0]				
Rectum	[6]					[0]					[0]				
Thymus	[6]					[0]					[0]				
Spleen	[6]					[0]					[0]				
Submandibular lymph node	[6]					[0]					[0]				
Mesenteric lymph node	[6]					[0]					[0]				
Kidney	[6]					[6]					[6]				
Hyaline droplet, tubular epithelium	6	0	0	0	0	6	0	0	0	0	6	0	0	0	0
Degeneration, tubular epithelium	6	0	0	0	0	6	0	0	0	0	5	1	1	0	0
Urinary bladder	[6]					[0]					[0]				

a) No abnormality detected.

b) Abnormality detected.

c) Number in brackets is number of males examined.

Grade of histopathological findings: ±: slight, +: mild, 2+: moderate, 3+: marked.

Significantly different from control group (*: P<0.05, **: P<0.01).

Significantly different by dose response test (#: P<0.05, ##: P<0.01).

Table 49-2 Histopathological findings of male rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	Control			1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene		
	N ^{a)}	A ^{b)}	±	N ^{a)}	A ^{b)}	±
Grade	0			180		720
Findings						
Testis	[6] ^{c)}			[0]		[6]
Epididymis	[6]			[0]		[6]
Seminal vesicle	[6]			[0]		[6]
Prostate	[6]			[0]		[6]
Cellular infiltration	3	3	0 0 0 0			6
Pituitary	[6]			[0]		[6]
Adrenal	[6]			[0]		[6]
Thyroid	[6]			[6]		[6]
Follicular cell hyperplasia, diffuse	4	2	1 1 0 0	3	3	2 1 0 0
Parathyroid	[5]			[0]		[6]
Cerebrum	[6]			[0]		[6]
Cerebellum	[6]			[0]		[6]
Medulla oblongata	[6]			[0]		[6]
Spinal cord	[6]			[0]		[6]
Sciatic nerve	[6]			[0]		[6]
Eyeball	[6]			[0]		[6]
Harderian gland	[6]			[0]		[6]
Bone marrow (sternum or femur)	[6]			[0]		[6]
Bone (sternum or femur)	[6]			[0]		[6]

a): No abnormality detected.

b): Abnormality detected.

c): Number in brackets is number of males examined.

Grade of histopathological findings: ±: slight, +: mild, 2+: moderate, 3+: marked.

Significantly different from control group (*: P<0.05).

Table 50-1. Histopathological findings of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	Control			45			180			720									
	N ^{a)}	A ^{b)}	±	+	2+	3+	N ^{a)}	A ^{b)}	±	+	2+	3+	N ^{a)}	A ^{b)}	±	+	2+	3+	
Findings																			
Heart	[6] ^{c)}						[0]						[6]						
Lung	[6]						[0]						[6]						
Trachea	[6]						[0]						[6]						
Liver	[6]						[6]						[6]						
Swelling, hepatocyte, centrilobular	6	0	0	0	0	0	6	0	0	0	0	0	6	0	6	0	0	0	** ##
Basophilic change, hepatocyte	6	0	0	0	0	0	6	0	0	0	0	0	6	0	6	0	0	0	** ##
Pancreas	[6]						[0]						[6]						
Sublingual gland	[6]						[0]						[6]						
Submandibular gland	[6]						[0]						[6]						
Esophagus	[6]						[0]						[6]						
Stomach	[6]						[0]						[6]						
Duodenum	[6]						[0]						[6]						
Jejunum	[6]						[0]						[6]						
Ileum	[6]						[0]						[6]						
Cecum	[6]						[0]						[6]						
Colon	[6]						[0]						[6]						
Rectum	[6]						[0]						[6]						
Thymus	[6]						[0]						[6]						
Spleen	[6]						[0]						[6]						
Hematopoiesis, extramedullary	3	3	3	0	0	0	[0]						[0]						
Submandibular lymph node	[6]						[0]						[6]						
Mesenteric lymph node	[6]						[0]						[6]						
Kidney	[6]						[6]						[6]						
Proliferation, collecting tubular epithelium	6	0	0	0	0	0	6	0	0	0	0	0	6	0	0	0	0	0	0
Dilatation, urinary tubule	6	0	0	0	0	0	6	0	0	0	0	0	6	0	0	0	0	0	0
Urinary bladder	[6]						[0]						[6]						

a): No abnormality detected.

b): Abnormality detected.

c): Number in brackets is number of females examined.

Grade of histopathological findings: ±: slight, +: mild, 2+: moderate, 3+: marked.

Significantly different from control group (*: P<0.05, **: P<0.01).

Significantly different by dose response test (##: P<0.01).

Table 50-2 Histopathological findings of female rats on termination of administration period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	Control 0			45			180			720									
	N ^{a)}	A ^{b)}	±	+	2+	3+	N ^{a)}	A ^{b)}	±	+	2+	3+	N ^{a)}	A ^{b)}	±	+	2+	3+	
Findings																			
Ovary	[6] ^{c)}						[0]						[0]						
Uterus	[6]						[0]						[0]						
Vagina	[6]						[0]						[0]						
Pituitary	[6]						[0]						[0]						
Adrenal	[6]						[0]						[0]						
Thyroid	[6]						[6]						[6]						
Follicular cell hyperplasia, diffuse	6	0	0	0	0	0	4	2	2	0	0	0	5	1	1	0	0	0	0
Parathyroid	[6]						[0]						[0]						
Cerebrum	[6]						[0]						[0]						
Cerebellum	[6]						[0]						[0]						
Medulla oblongata	[6]						[0]						[0]						
Spinal cord	[6]						[0]						[0]						
Sciatic nerve	[6]						[0]						[0]						
Eyeball	[6]						[0]						[0]						
Harderian gland	[6]						[0]						[0]						
Bone marrow (sternum or femur)	[6]						[0]						[0]						
Bone (sternum or femur)	[6]						[0]						[0]						
Mammary gland	[6]						[0]						[0]						

a): No abnormality detected.

b): Abnormality detected.

c): Number in brackets is number of females examined.

Grade of histopathological findings: ±: slight, +: mild, 2+: moderate, 3+: marked.

Table 51 Histopathological findings of male rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	Control			1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene			720		
	N ^{a)}	A ^{b)}	± + 2+ 3+	N ^{a)}	A ^{b)}	± + 2+ 3+	N ^{a)}	A ^{b)}	± + 2+ 3+
Grade									
Findings									
Liver	[6] ^{c)}			[6]			[6]		
Swelling, hepatocyte, centrilobular	6	0	0 0 0 0	6	0	0 0 0 0	5	1	1 0 0 0
Adhesion	6	0	0 0 0 0	5	1	0 0 0 0	6	0	0 0 0 0
Kidney	[6]			[6]			[6]		
Hyaline droplet, tubular epithelium	5	1	1 0 0 0	6	0	0 0 0 0	5	1	1 0 0 0
Degeneration, tubular epithelium	6	0	0 0 0 0	6	0	0 0 0 0	6	0	0 0 0 0
Thyroid	[6]			[6]			[6]		
Follicular cell hyperplasia, diffuse	6	0	0 0 0 0	5	1	1 0 0 0	4	2	2 0 0 0
Ectopic, thymic tissue	6	0	0 0 0 0	5	1	0 0 0 0	6	0	0 0 0 0
a): No abnormality detected.									
b): Abnormality detected.									
c): Number in brackets is number of males examined.									
Grade of histopathological findings: ±: slight, +: mild, 2+: moderate, 3+: marked.									
Significantly different from control group (**: P<0.01).									
Significantly different by dose response test (##: P<0.01).									

Table 52. Histopathological findings of female rats on termination of recovery period in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group mg/kg	Control					1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene													
	0	±	+	2+	3+	180					720								
Grade	N ^{a)}	A ^{b)}	±	+	2+	3+	N ^{a)}	A ^{b)}	±	+	2+	3+	N ^{a)}	A ^{b)}	±	+	2+	3+	
Findings																			
Liver	[6]	0	0	0	0	0	[6]	0	0	0	0	0	[5]	2	2	0	0	0	0
Swelling, hepatocyte, centrilobular																			
Kidney	[6]	0	0	0	0	0	[6]	0	0	0	0	0	[5]	0	0	0	0	0	0
Cyst, left																			
Thyroid	[6]	0	0	0	0	0	[6]	1	1	0	0	0	[5]	0	0	0	0	0	0

a): No abnormality detected.

b): Abnormality detected.

c): Number in brackets is number of females examined.

Grade of histopathological findings: ±: slight, +: mild, 2+: moderate, 3+: marked.

Table 53 Reproductive functions of male rats and female rats in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-propanediyl)-bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-propanediyl)-bisbenzene	1,1'-(1,1-dimethyl-3-propanediyl)-bisbenzene
mg/kg	0	45	180
Number of females	12	12	11
Number of estrous cases before pairing (14 days)			
Mean±S.D.	3.5 ± 0.5	3.3 ± 0.5	3.4 ± 0.5
Number of pairs	12	12	11
Number of pairs with successful copulation	12	12	11
Copulation index (%) ^{a)}	100.0	100.0	100.0
Number of conceiving days			
Mean±S.D.	2.8 ± 1.1	2.4 ± 1.3	3.8 ± 4.4
Conceiving days 1-5	12	12	10
Conceiving days ≥6	0	0	2
Number of pregnant females	11	12	11
Fertility index (%) ^{b)}	91.7	100.0	91.7
a): (Number of pairs with successful copulation / number of pairs)×100.			
b): (Number of pregnant females / number of pairs with successful copulation)×100.			
			720
			11
			2.9 ± 0.8
			11
			11
			100.0
			2.4 ± 1.3
			11
			0
			10
			90.9

Table 54 Observation of pups (F₁) in combined repeat dose and reproductive/development toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene			
	Control	45	180	720
mg/kg	0	11	11	10
Number of dams	11	12	11	10
Length of gestation (days)	22.1 ± 0.3	22.1 ± 0.5	22.0 ± 0.0	22.5 ± 0.5
Pregnancy days = 21	0	1	0	0
Pregnancy days = 22	10	9	11	5
Pregnancy days ≥ 23	1	2	0	5
Corpora lutea	15.9 ± 1.7	14.7 ± 1.5	15.7 ± 1.1	12.2 ± 3.3 **
Implantation scars	14.9 ± 1.6	14.1 ± 1.3	14.8 ± 1.2	9.1 ± 4.0 **
Implantation index (%) ^{a)}	93.8 ± 4.8	96.2 ± 4.3	94.3 ± 5.0	74.1 ± 24.5
Gestation index (%) ^{b)}	100.0	100.0	100.0	100.0
Pups born	13.7 ± 2.0	13.4 ± 1.4	14.2 ± 1.1	8.0 ± 3.9 **
Stillbirths	0.3 ± 0.5	0.2 ± 0.6	0.0 ± 0.0	0.8 ± 1.6
Live pups born	13.5 ± 1.9	13.3 ± 1.7	14.2 ± 1.1	7.2 ± 3.6 **
Sex ratio at birth ^{c)}	0.96 ± 0.35	1.00 ± 0.53	1.03 ± 0.56	1.13 ± 0.97
(Total male/total female)	69/79	73/86	74/82	31/41
Delivery index (%) ^{d)}	90.2 ± 6.3	94.2 ± 8.9	95.8 ± 4.4	79.9 ± 21.7
Birth index (%) ^{e)}	90.4 ± 6.2	94.2 ± 9.0	95.8 ± 4.3	80.0 ± 21.6
Live birth index (%) ^{f)}	98.2 ± 3.2	98.6 ± 4.9	100.0 ± 0.0	92.1 ± 15.1
Live pups on Day 4 of lactation	13.4 ± 2.0	12.9 ± 1.8	12.8 ± 4.4	7.0 ± 3.9 **
Sex ratio on Day 4 of lactation ^{g)}	0.94 ± 0.36	1.00 ± 0.53	1.01 ± 0.58	1.14 ± 1.03
(Total male/total female)	68/79	71/84	66/75	30/40
Viability index (%) ^{h)}	99.2 ± 2.5	97.4 ± 4.0	90.3 ± 30.0	90.0 ± 31.6
External abnormalities (%) ^{h)}	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0	0.0 ± 0.0

Each value shows mean ± S.D. per dam.

Significantly different from control group (**; P<0.01).

Figures in parentheses indicate number of dams.

a): (Number of implantation scars/number of corpora lutea)×100.

c): Number of male pups/number of female pups.

e): (Number of live pups born/number of implantation scars)×100.

g): (Number of live pups on Day 4/number of live pups born)×100.

b): (Number of dams with live pups/number of pregnant dams)×100.

d): (Number of pups born/number of implantation scars)×100.

f): (Number of live pups born/number of pups born)×100.

h): (Number of pups with external abnormalities/number of live pups)×100.

Table 55 Delivery conditions and nursing conditions of dams in combined repeat dose and reproductive/developmental toxicity screening test of 1,1-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	mg/kg	Number of dams and delivery conditions/nursing conditions	Delivery conditions	Nursing conditions			
				Days of lactation			
				0	1	2	3
Control	0	Number of dams	11	11	11	11	11
		Normal	11	11	11	11	11
1,1-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	45	Number of dams	12	12	12	12	12
		Normal	12	12	12	12	12
	180	Number of dams	11	11	11	11	10
		Normal	11	11	11	10	10
		Faulty nest-building	-	0	1	1	0
		Faulty nipple development	-	0	0	1	0
	720	Number of dams	10	10	9	9	9
		Normal	10	10	9	9	9

Table 56 General signs of pups (F₁) in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	mg/kg	Number of pups and general signs	Days of lactation				
			0	1	2	3	4
Control	0	Number of pups	151	148	148	147	147
		Normal	148	148	147	147	147
		Death	3	0	1	0	0
1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	45	Number of pups	161	159	158	157	156
		Normal	159	158	157	156	155
		Death	2	1	1	1	1
1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	180	Number of pups	156	156	156	155	153
		Normal	156	156	141	141	141
		Hypothermia	0	0	14	12	0
		Death	0	0	1	2	12
1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	720	Number of pups	80	72	70	70	70
		Normal	72	70	70	70	70
		Death	8	2	0	0	0

Table 57 Body weights of pups (F₁) in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene		
mg/kg	0	45	180	720
Number of dams		12	11	10
Male weight				
Days of lactation	0	6.7 ± 0.7	6.7 ± 0.4	7.4 ± 0.5 **
	4	10.9 ± 1.2	9.8 ± 0.8	12.2 ± 1.3 ** (9)
Female weight				
Days of lactation	0	6.4 ± 0.5	6.3 ± 0.4	6.9 ± 0.5
	4	10.1 ± 1.3	9.2 ± 0.9	11.4 ± 1.2 (9)
Mean pups weight				
Days of lactation	0	6.6 ± 0.7	6.5 ± 0.4	7.2 ± 0.4 *
	4	10.7 ± 1.3	9.5 ± 0.8	11.8 ± 1.2 * (9)
Litter weight				
Days of lactation	0	87.2 ± 11.2	91.6 ± 7.3	52.2 ± 26.9 *
	4	136.1 ± 16.2	133.7 ± 12.5	89.8 ± 34.0 * (9)

Each value shows mean (g) ± S.D. per dam.
 Significantly different from control group (*: P<0.05, **: P<0.01).
 Figures in parentheses indicate number of dams.

Table 58 Necropsy findings of dead pups (F₁) in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	
		45	180
mg/kg	0	45	180
Number of dams	2	2	2
Number of dead pups	2	3	13
Normal	2	3	13
Abnormal	0	0	0

Table S9 Necropsy findings of pups (F₁) in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

Group	Control	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene	1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene
mg/kg	0	45	180
Number of dams	11	12	10
Number of male pups	68	71	66
Normal	68	71	66
Abnormal	0	0	0
Number of dams	11	12	10
Number of female pups	79	84	75
Normal	79	84	75
Abnormal	0	0	0
			720
			9
			30
			30
			0
			9
			40
			40
			0

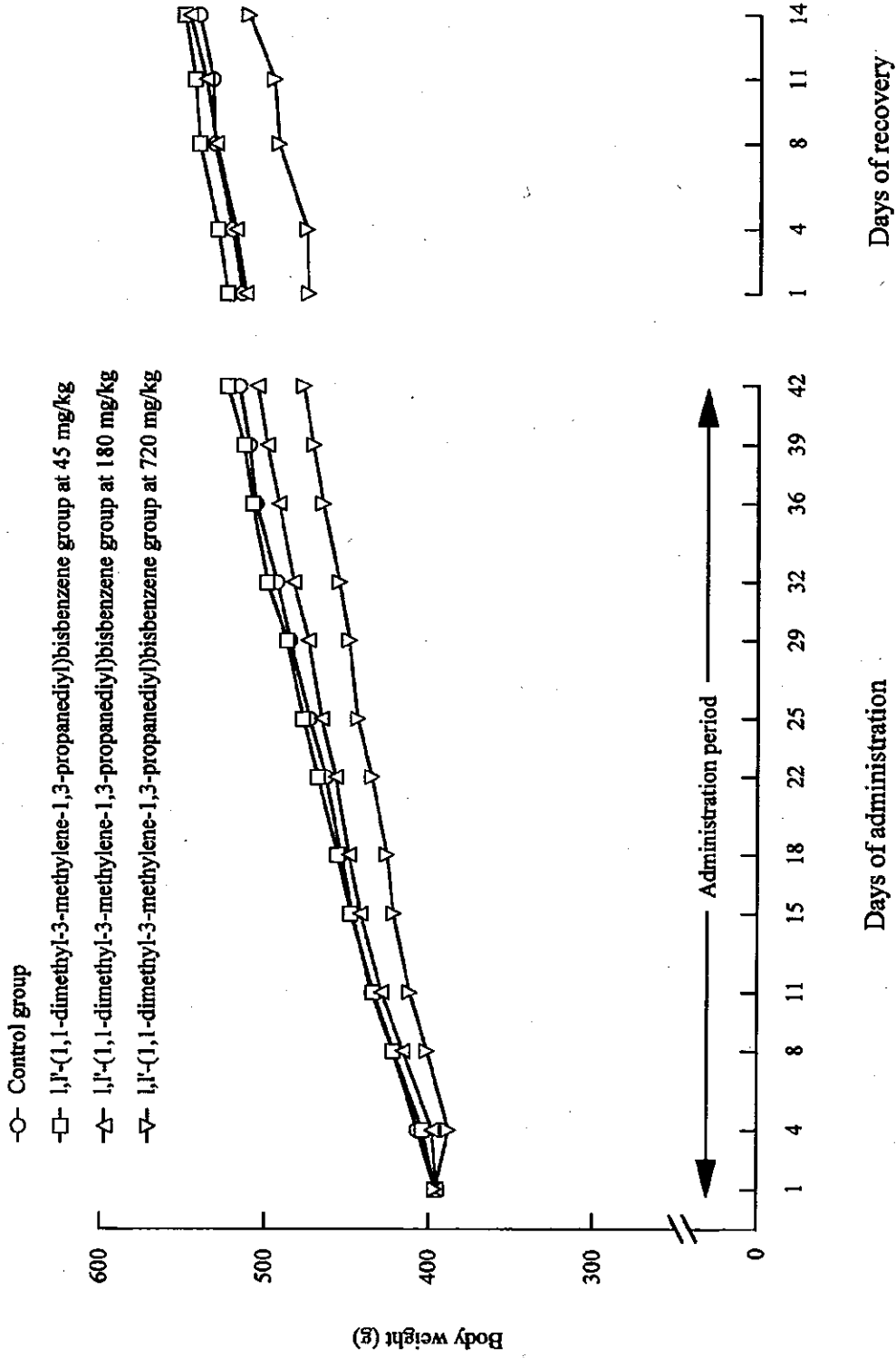


Fig. 2 Body weights of male rats in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

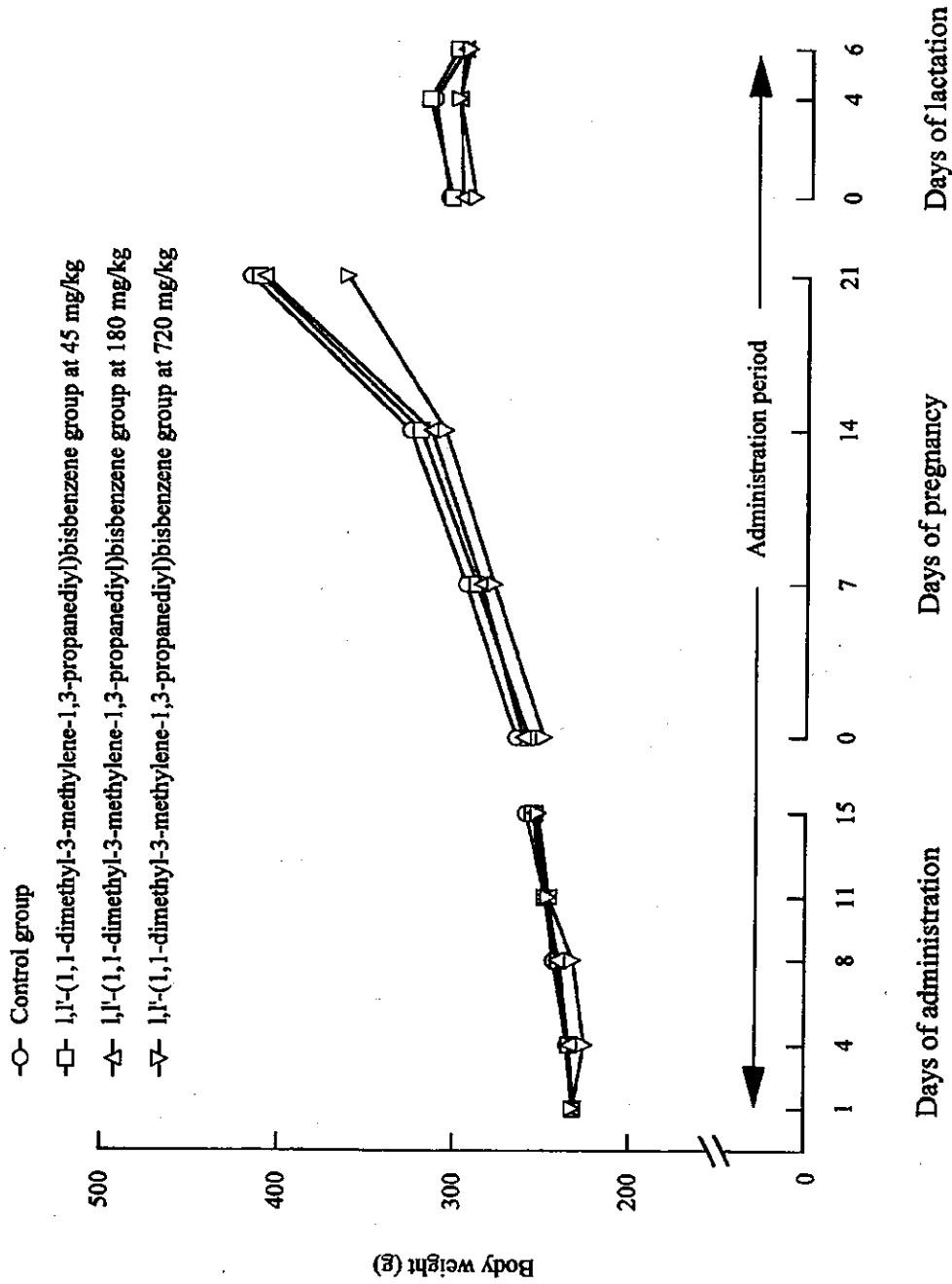


Fig. 3 Body weights of female rats in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

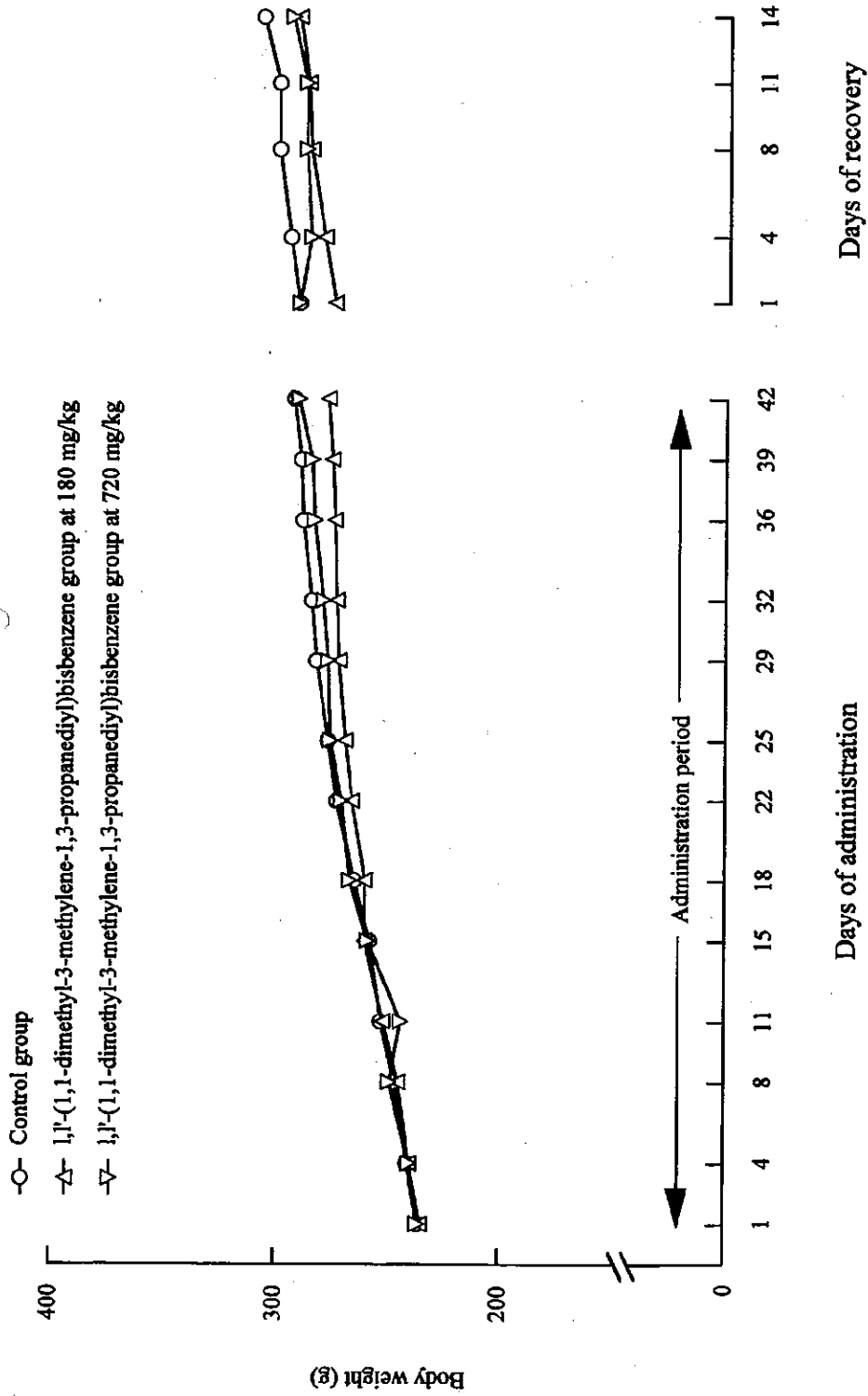


Fig. 4 Body weights of female rats (recovery group) in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

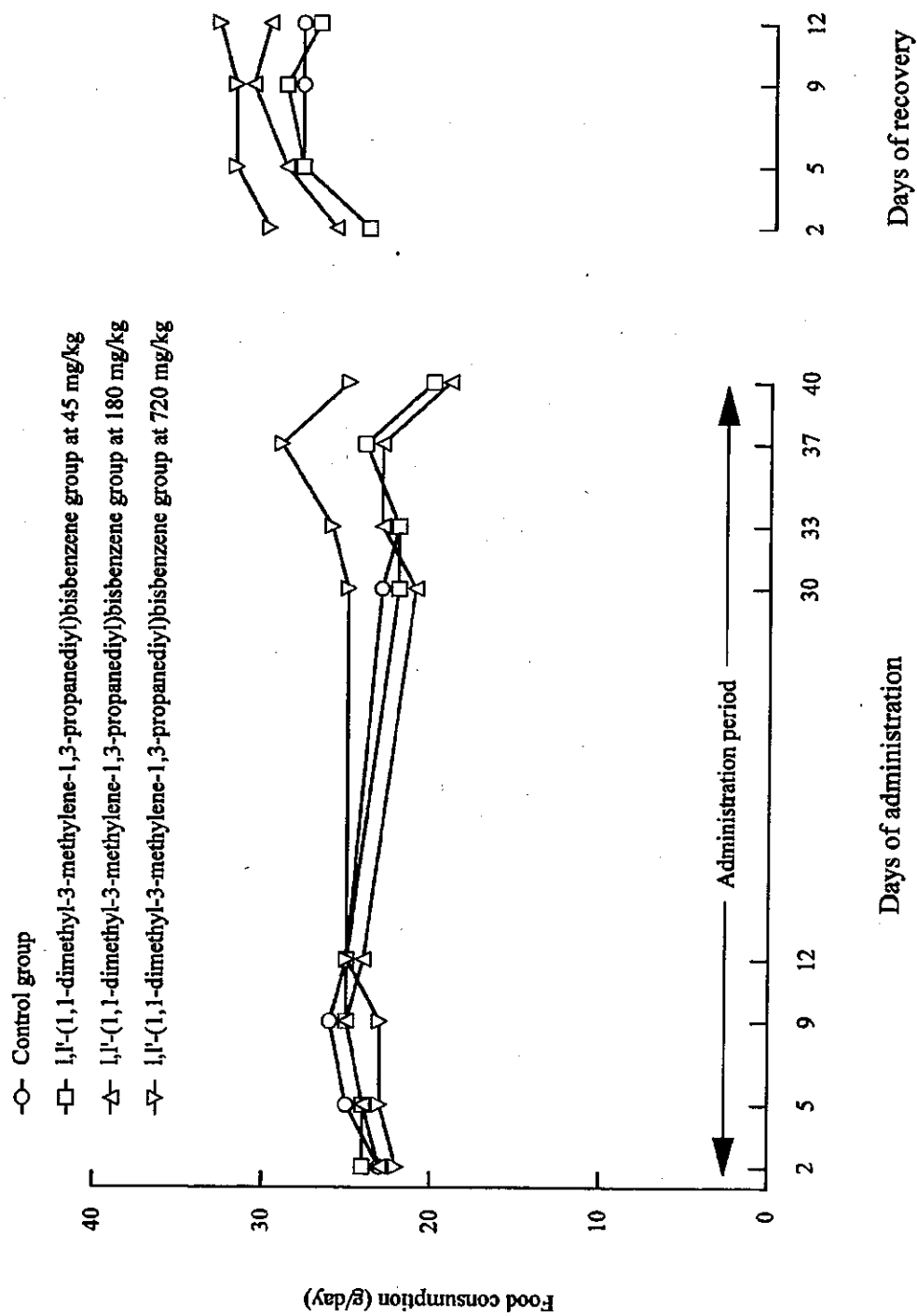


Fig. 5 Food consumption of male rats in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

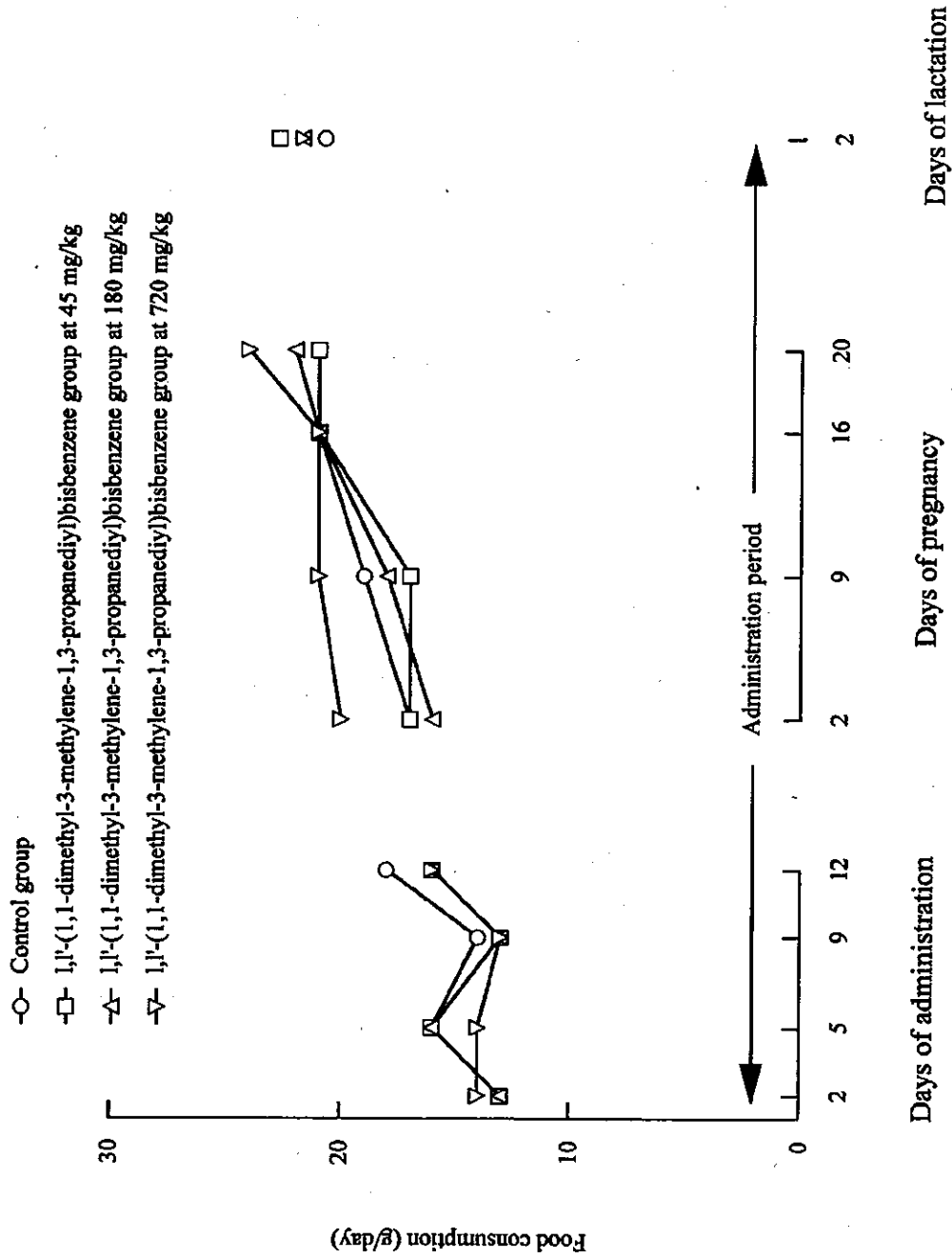


Fig. 6 Food consumption of female rats in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration

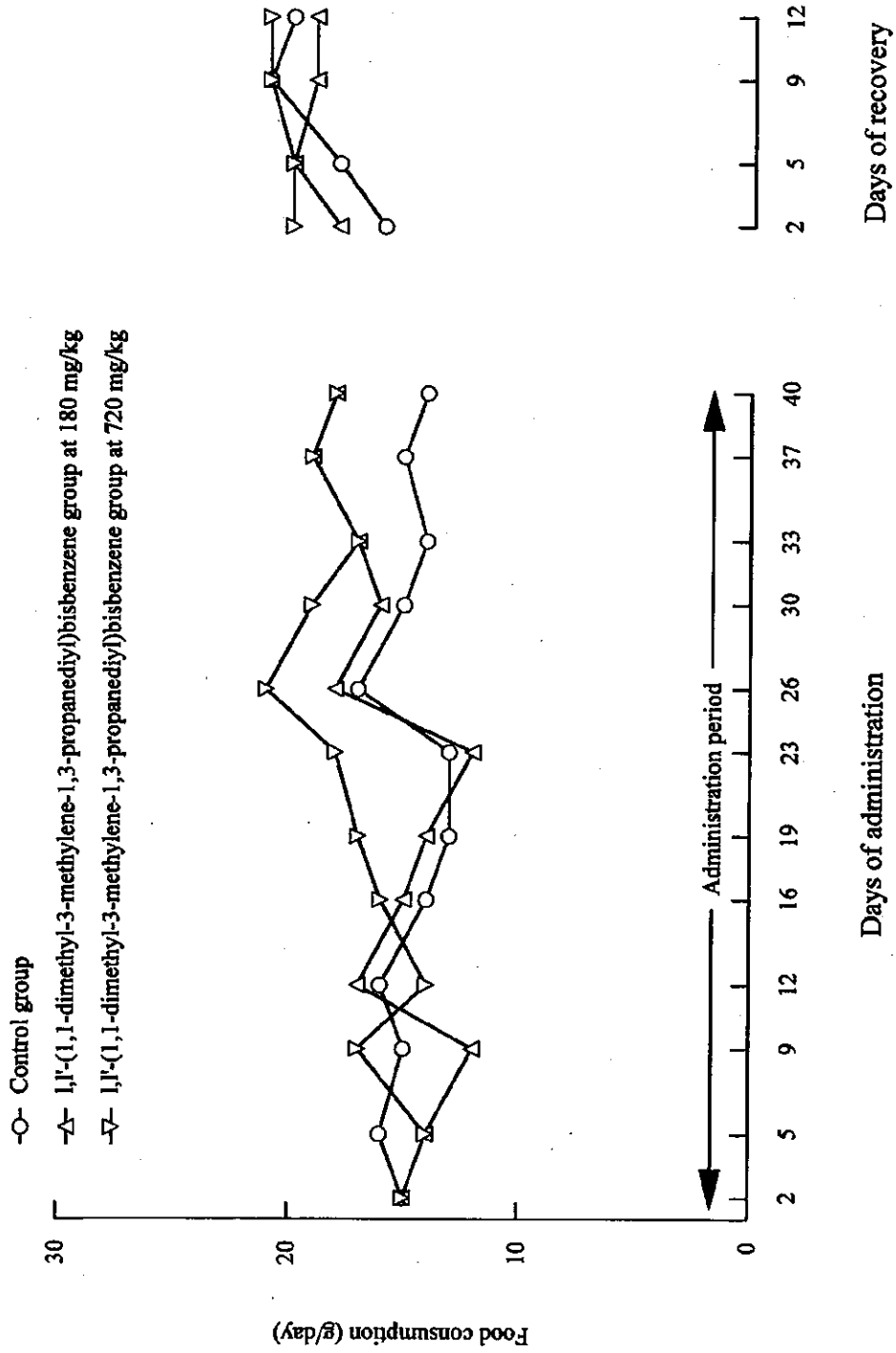


Fig. 7 Food consumption of female rats (recovery group) in combined repeat dose and reproductive/developmental toxicity screening test of 1,1'-(1,1-dimethyl-3-methylene-1,3-propanediyl)bisbenzene by oral administration